

# Water Quality Monitoring in North Mill Creek (IL)

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Paap

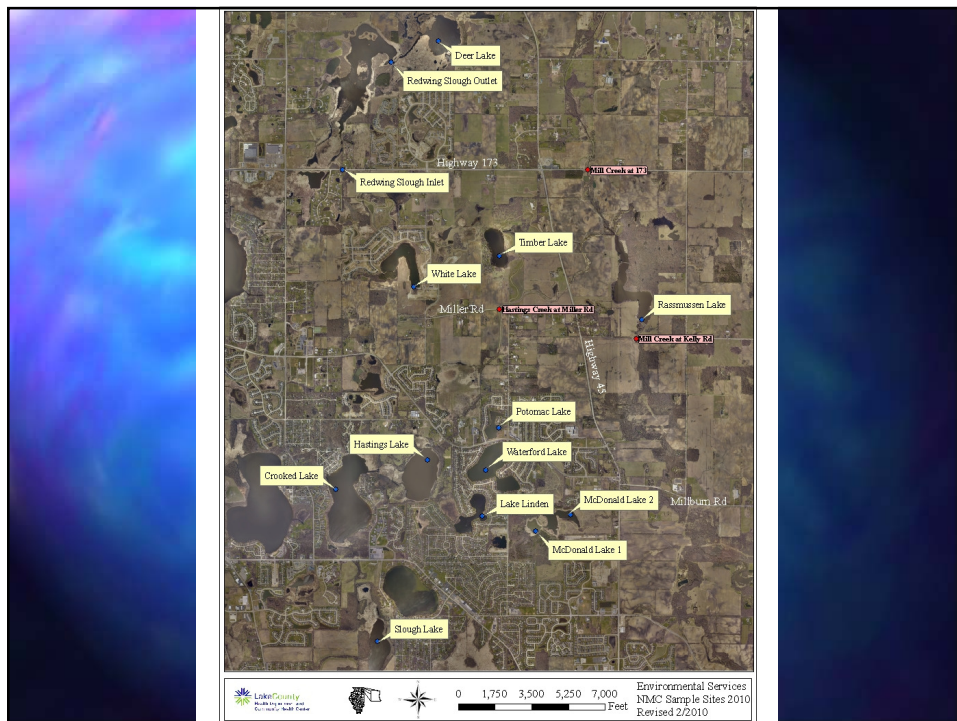


## Project Description and Purpose

- To complement the Lake County Stormwater Management Commission North Mill Creek watershed planning efforts.
- Conduct water quality assessments on 12 lakes
- To collect water quality and flow measurements in three locations along North Mill Creek.

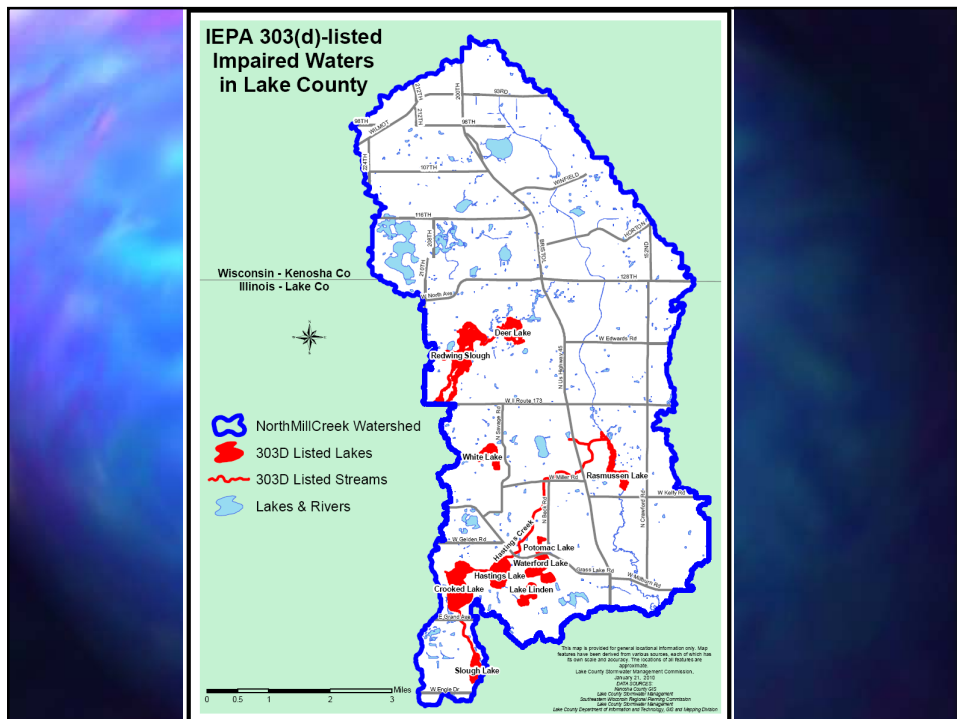
## North Mill Creek Watershed – IL Lakes

- Redwing Slough
- Deer Lake
- Timber (Huntley) Lake
- Slough Lake
- Crooked Lake
- Hastings Lake
- Lake Linden
- Potomac Lake
- Waterford Lake
- MacDonald Lakes 1&2
- White Lake



# Water Quality

- Water quality is POOR
- Eleven of the waterbodies (10 lakes and Hastings Creek) in the watershed are impaired for at least one designated use (IL EPA).
- Examples: recreational impairment (too many “weeds”), fecal coliform, turbidity, phosphorus, dissolved oxygen





## Water Quality in Lakes

- Main Concerns:
  - Turbidity (suspended solids)
  - Phosphorus
  - Dissolved oxygen
  - Aquatic plants
  - Invasive species (Eurasian milfoil, zebra mussels, carp)
  - Chlorides
- However.... Some high quality habitat exists
  - Red Wing Slough and Deer Lake complex; Timber (Huntley) Lake

## Lake Measurements

- **Water quality:** dissolved oxygen, conductivity, pH, water temperature, nutrients (phosphorus, nitrogen), Chloride
  - 1 x / month
- **Aquatic Plants**
  - 1-2 x / year
- Duration: May - September 2010



## Exotic Aquatic Plants



Eurasian Watermilfoil



Curlyleaf Pondweed



Purple Loosestrife

## Creek Measurements

- **Water quality:** dissolved oxygen, conductivity, pH, turbidity, and water temperature
- **Flow:** includes velocity, level, and discharge
- Continuous at 15 min. intervals, 24/7
- Duration: March – November 2010

## Equipment



## Equipment





# Equipment



